



# Town of Mount Airy 2009 Annual Drinking Water Quality Report

PWSID#: 006-0007

## Is my water safe?

Last year, as in years past, your tap water met all EPA and state drinking water health standards. The Town of Mount Airy is pleased to provide this annual water quality report for calendar year 2008. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water.

We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. The Town of Mount Airy routinely monitors for contaminants in your drinking water. We vigilantly safeguard our water supplies and once again we are proud to report that our system has never violated a maximum contaminant level or any other water quality standard.

## Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## Where does my water come from and what are the potential sources of contamination?

Your drinking water is supplied by 10 ground water wells. The source of Mount Airy's water supply is an unconfined fractured rock aquifer. The susceptibility analysis for Mount Airy's water supply is based on a review of the water quality data, potential sources of contamination, aquifer characteristics, and well integrity. It was determined that Mount Airy's water supply is susceptible to contamination by nitrates, volatile organic compounds (except for Well No. 8), synthetic organic compounds, radionuclides and is not susceptible to protozoans. Two of the wells (Nos. 2 and 7) are susceptible to bacteria and viruses. For more information on the source of your water and the significant potential sources of contamination, contact the Maryland Source Water Assessment Program at the Maryland Department of the Environment at (410) 631-3714 or visit on the web [www.mde.state.md.us/health/swap/](http://www.mde.state.md.us/health/swap/)

## Why may there be contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

1. Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
2. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
3. Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
4. Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
5. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

## Lead

If present, elevated levels of lead can cause serious health problems, especially in pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Mount Airy is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

## Nitrate

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

## Fluoride

Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease including pain and tenderness of the bones. Fluoride in water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

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# Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected in your water. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, may be up to five years old.

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Contaminants (units)	MCLG	MCL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source	Plant ID
<b>Inorganic Contaminants</b>									
Copper (ppm)	1.3	1.3AL	0.09	NA	NA	12/31/06	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Dist.
Nitrate (ppm)	10	10	5.4	3.8	7.6	¼ly 2008	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	01
Nitrate (ppm)	10	10	8.3	NA	NA	03/20/08	No	Same as above	02
Nitrate (ppm)	10	10	5.7	NA	NA	03/20/08	No	Same as above	03
Nitrate (ppm)	10	10	5.1	3.5	7.7	¼ly 2008	No	Same as above	04
Nitrate (ppm)	10	10	5.1	NA	NA	03/20/08	No	Same as above	05
Fluoride (ppm)	4	4	0.41	NA	NA	02/22/08	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	02
Fluoride (ppm)	4	4	1.66	NA	NA	02/22/08	No	Same as above	03
Fluoride (ppm)	4	4	1.24	NA	NA	03/20/08	No	Same as above	05
Barium (ppm)	2	2	0.03	NA	NA	02/22/06	No	Discharge of drilling wastes/metal refineries; erosion of natural products	02
Barium (ppm)	2	2	0.07	NA	NA	02/22/06	No	Same as above	03
<b>Radioactive Contaminants</b>									
Alpha emitters (pCi/L)	0	15	1	NA	NA	08/09/04	No	Erosion of natural deposits	01
Alpha emitters (pCi/L)	0	15	3	NA	NA	08/09/04	No	Erosion of natural deposits	02
Alpha emitters (pCi/L)	0	15	1	NA	NA	08/09/04	No	Erosion of natural deposits	03
Beta photon emitters (pCi/L)	0	50*	3	NA	NA	04/20/04	No	Decay of natural and man-made deposits	02
Combined Radium (pCi/L)	0	5	0.6	NA	NA	08/09/04	No	Erosion of natural deposits	01
Combined Radium (pCi/L)	0	5	0.5	NA	NA	08/09/04	No	Erosion of natural deposits	01
Radon(pCi/L)	NA	NA	1864	NA	NA	07/12/06	No	Erosion of natural deposits	01
Radon(pCi/L)	NA	NA	1693	NA	NA	07/12/06	No	Erosion of natural deposits	02
Radon(pCi/L)	NA	NA	3462	NA	NA	07/12/06	No	Erosion of natural deposits	03
Radon(pCi/L)	NA	NA	2107	NA	NA	07/12/06	No	Erosion of natural deposits	04
Radon(pCi/L)	NA	NA	2799	NA	NA	07/12/06	No	Erosion of natural deposits	05
<b>Synthetic Organic Contaminants</b>									
Di(2-ethylhexyl)phthalate (ppb)	0	6	0.9	NA	NA	04/11/07	No	Discharge from rubber and chemical factories	01
Di(2-ethylhexyl)phthalate (ppb)	0	6	0.79	NA	NA	07/31/08	No	Same as above	02
Di(2-ethylhexyl)phthalate (ppb)	0	6	1.0	NA	NA	01/31/07	No	Same as above	03
Di(2-ethylhexyl)phthalate (ppb)	0	6	0.8	NA	NA	02/20/08	No	Same as above	05
Metolachlor (ppb)	40	40	1.2	NA	NA	01/31/07	No	Runoff/leaching from pesticides	03
Pentachlorophenol (ppb)	0	1	0.03	NA	NA	01/31/07	No	Discharge from wood preserving factories	03
<b>Unregulated Contaminants</b>									
Chloroform (ppb)	not regulated		1.0	NA	NA	01/29/06	No	EPA regulations require us to monitor contaminant while EPA considers setting a limit on it	01
Bromodichloromethane (ppb)	not regulated		0.8	NA	NA	01/29/06	No	Same as above	01
<b>Volatile Organic Contaminants</b>									
Carbon Tetrachloride (ppb)	0	5	0.8	NA	NA	07/31/08	No	Discharge from chemical plants	04

Dist.: Water from the system's distribution.

\*EPA considers 50pCi/l to be the level of concern for beta particles

## Important Drinking Water Definitions:

**MCLG:** Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risks for safety. MCGL allows for margin of safety.

**MCL:** Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**AL:** Action Level. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

## Units of Measurement & Conversions:

NA: Not applicable

pCi/L: picocuries per liter (a measure of radioactivity)

ppm: parts per million, or milligrams per liter (mg/L)

ppb: parts per billion, or micrograms per liter (µg/L)

If you want to learn more, you are encouraged to attend any town meeting held on the first Monday evening of every month at the Town Hall. For additional information or questions contact:

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Phone (301) 829-1424

Prepared by: Water Testing Labs of Maryland, Inc.

For more information on contaminants in drinking water and its effects go to [www.wtlmd.com](http://www.wtlmd.com)